

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

**(19) World Intellectual Property
Organization
International Bureau**



(43) International Publication Date
26 February 2004 (26.02.2004)

PCT

(10) International Publication Number
WO 2004/017048 A1

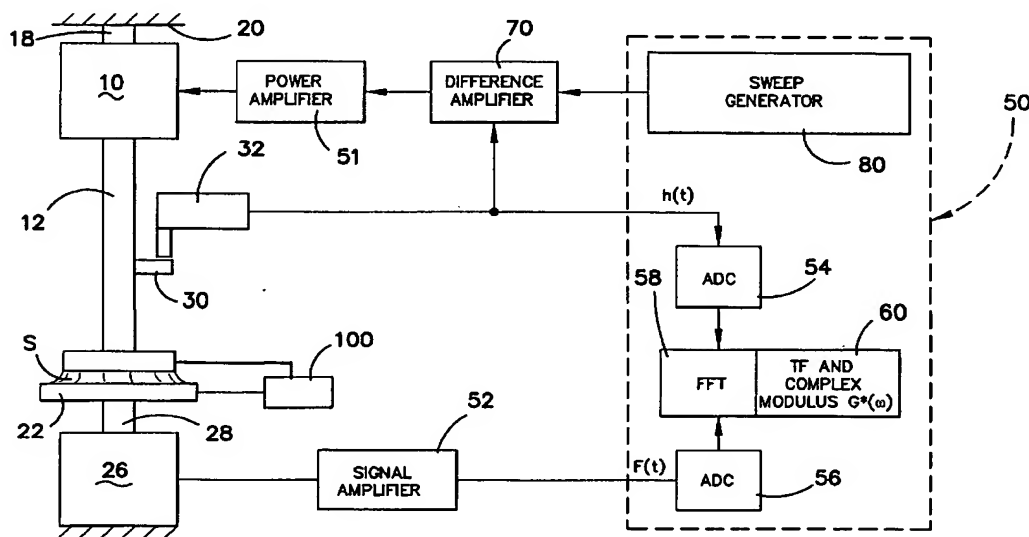
- (51) **International Patent Classification⁷:** G01N 11/00, 3/32
- (21) **International Application Number:**
PCT/AU2003/001005
- (22) **International Filing Date:** 8 August 2003 (08.08.2003)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
2002950831 16 August 2002 (16.08.2002) AU
- (71) **Applicant (for all designated States except US):** GBC SCIENTIFIC EQUIPMENT PTY LTD [AU/AU]; 12 Monterey Road, Dandenong, Victoria 3175 (AU).
- (72) **Inventors; and**
- (75) **Inventors/Applicants (for US only):** GREY, Ronald, Garwood [AU/AU]; 401 Beach Road, Beaumaris, Victoria 3193 (AU). CONDICK, Geoffrey, Mark [AU/AU]; 3 Chandos Place, Langwarrin, Victoria 3910 (AU). SVENDSEN, Dean [AU/AU]; 5 Sorbus Close, Endeavour Hills, Victoria 3802 (AU).
- (74) **Agent:** GRIFFITH HACK; 509 St Kilda Road, Melbourne, Victoria 3004 (AU).
- (81) **Designated States (national):** AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) **Designated States (regional):** ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:**
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

Published:

— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: RHEOMETER



(57). ~~Abstract:~~ A rheometer and method of making rheological measurements is disclosed, in which a sample S is supported between plates (14) and (22) and an alternating movement is applied by a driver (10), support rod (12) and plate (14). Force and displacement measurements are taken and the property determined from those measurements. The vibrating signal which is applied is in the form of a frequency sweep signal having a monotonic group delay function. The top plate (14) is provided with a surface which causes a meniscus to form up a side edge of the plate to reduce the spring nature of the sample when the movement is supplied to the sample, and a supporting rod (12) which supports the top plate (14) is preferably formed from a material having a low coefficient of thermal expansion so that the gap between the plates (14) and (22) is maintained substantially constant if the sample is heated to take measurements at different temperatures.

WO 2004/017048 A1